

the specification as originally filed, and no new matter has been added. The amendments are made to clarify the claims and are not intended to limit the scope of equivalents to which any claim element may be entitled. Applicant respectfully requests reconsideration of the above-identified application and allowance of all claims in view of the amendments above and the remarks that follow.

Claims 1, 9, and 13, as amended, find support in the specification, for example, on page 8, lines 16-18.

Claims 3 and 12 are amended to eliminate any possible conflict with claims 1 and 9, respectively. Claims 3 and 12 are not amended with respect to a prior art rejection. Claims 3 and 12 find support from the specification, for example, on page 8, lines 16-18 in combination with column 5, lines 3-8 of U.S. patent 6,320,222 incorporated by reference.

Claim 4 is amended to eliminate any possible conflict with claim 8, and is not amended with respect to a prior art rejection. Claim 4 finds support from the specification, for example, on page 8, lines 16-18 in combination with column 4, lines 63-65 of U.S. patent 6,320,222 incorporated by reference.

Claims 22 -30 are amended to clarify these claims as depending from a method claim, and are not amended with respect to a prior art rejection.

#### Objections to Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Applicant traverses these objections of the drawings.

Applicant's specification incorporates by reference U.S. patent 6,320,222. According to the MPEP, §608.01(p) I.A. "In addition to other requirements for an application, the referencing application should include an identification of the referenced patent, application, or publication." The original application identified the incorporated application on page 1, line 1, reciting "This application, attorney docket number 303.517US1, entitled 'Structure and Method for Reducing Threshold Voltage Variations Due to Dopant Fluctuations' by inventors Leonard Forbes and Wendell P. Noble, which is hereby incorporated by reference." Subsequently, the instant

continuation application identifies the above identification application as the issued patent, U.S. patent 6,320,222. Thus, Applicant submits that the requirements for incorporating by reference for U.S. patent 6,320,222 have been met.

Elements of claims 1-30 not shown in Figures 1-3 are shown in the Figures of U.S. Patent No. 6,320,222. No new matter is introduced. Furthermore, in the detailed description for U.S. Patent No. 6,320,222, the material from column 4, line 55 to column 14, line 14 can be used to describe elements for claims to the embodiments of the instant application.

Since the material incorporated by reference is in an issued patent that has been identified by patent number, Applicant believes incorporation by amending the instant specification, including figures, is not required. Thus, Applicant submits that the incorporation by reference in the specification, for example, on page 1, lines 9-13, constructively provides the drawing correction requested in the Office Action.

Applicant respectfully requests withdrawal of these objections of the drawings.

#### Double Patenting Rejection

Claims 1-30 were rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-22 of U.S. Patent No. 6,320,222 (303.517us1).

A Terminal Disclaimer will be considered when all claims are indicated to be otherwise allowable.

#### Duplication

Applicant is advised that, by incorporating all limitations of independent claim 1 into claim 4, incorporated claim 4 is identically duplicated that of claim 8. Therefore, should the indicated claim(s) be found allowable, the duplicate claim will be rejected under 35 USC § 101. One of the claims should be canceled to avoid the duplication.

Claim 4 is amended. Applicant believes that claim 4, as amended, does not duplicate claim 8.

*First §112 Rejection of the Claims*

Claims 1-30 were rejected under 35 USC § 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed. Applicant respectfully traverses these rejections.

Applicant's specification incorporates by reference U.S. patent 6,320,222. Thus, Applicant's specification describes and shows encasing a portion of a body region with arsenic silicate glass (ASG) or BSG (claims 6-20, 27-30) through the incorporation by reference of U.S. patent 6,320,222.

Further, Applicant's specification describes and supports the recitations of claim 21, "a width that is sufficiently thin relative to a doping concentration (NA) of the body region such that a bulk charge (QB) is negligible in transistor operation ... such that a threshold voltage for the transistor depends only on a thickness of the first and second oxides and the width of the body region," through the incorporation by reference of U.S. patent 6,320,222.

Additionally Applicant's specification describes and supports the recitations of claim 21 to a "fully depleted structure" in the specification, for example, on page 8, lines 16-18, and in the summary, column 2, line 54 - column 3, line 42 of US patent 6,320, 222 incorporated by reference in Applicant's specification.

Further, Applicant's specification describes and supports the recitations, "forming a first source/drain region on the substrate ... vertically forming a body region on the first source/drain region," through the incorporation by reference of U.S. patent 6,320,222.

Further, Applicant's specification describes and supports the recitations, "forming a body region ... such that biasing the first and the second gates fully depletes the body region," through the incorporation by reference of U.S. patent 6,320,222.

Applicant submits that the subject matter of the claims was described in the specification in such a way as to reasonably convey the subject matter to one skilled in the relevant art that the inventor(s), at the time the application was filed.

Applicant requests withdrawal of these rejections to claims 1-30, reconsideration and allowance of these claims.

*Second §112 Rejection of the Claims*

Claims 1-30 were rejected under 35 U.S.C. 112, first paragraph, as based on a disclosure which is not enabling. Applicant traverses these rejections of the claims.

A claim which omits matter disclosed to be essential to the invention as described in the specification or in other statements of record may be rejected under 35 U.S.C. 112, first paragraph, as not enabling. *In re Mayhew*, 527 F.2d 1229, 188 USPQ 356 (CCPA 1976). MPEP § 2172.01. Applicant respectfully requests that the Examiner provide a specific reference from the specification that indicates that his recitation is essential to claims 1-30. The language used in the independent claims 1, 8, 9, 13, 14, 20, and 21 find support in the specification, for example, on page 8, lines 18-21, and in the summary of U.S. patent 6,320, 222 that is incorporated by reference in Applicant's instant specification. Therefore, Applicant submits that claims 1-30 are enabled by Applicant's specification.

Applicant requests withdrawal of these rejections to claims 1-30, reconsideration and allowance of these claims.

*Third §112 Rejection of the Claims*

Claim 21 was rejected under 35 USC § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention.

Claim 21 is amended. Applicant believes that claim 21, as amended, overcomes the §112 rejection. Thus, Applicant requests withdrawal of this rejection to claims 21, reconsideration and allowance of this claim.

*First §102 Rejection of the Claims*

Claims 1-13 and 21-26 were rejected under 35 USC § 102(e) as being anticipated by Noble et al. (U.S. 6,150,687).

Applicant does not admit that Noble et al. (hereafter Noble) is prior art, and reserves the right to swear behind the Noble patent at a later date. Nevertheless, Applicant respectfully

submits that the claims are distinguishable over Noble for the reasons stated below.

Claim 1, as amended, recites “vertically forming a body region on the first source/drain region as a fully depleted structure.” Recitation to a “fully depleted structure” finds support in the specification, for example, on page 8, lines 16-18, and in the summary, column 2, line 54 - column 3, line 42 of US patent 6,320, 222 incorporated by reference in Applicant’s specification.

Claims 8 and 9, as amended, recite “forming the body region includes vertically growing an epitaxial layer as a fully depleted structure.”

Claim 13, as amended, recites “vertically forming a second conductivity type body region on the first source/drain layer as a fully depleted structure.”

Claim 21, as amended, recites “vertically forming a body region with a fully depleted structure on the first source/drain region.”

Applicant can not find in Noble a teaching or suggestion of forming a body region as a fully depleted structure, as recited in claims 1, 8, 9, 13, and 21. Therefore, Applicant submits that Noble does not anticipate claim claims 1, 8, 9, 13, and 21.

Claims 2-7, 10-12, 22-26 are dependent on claims 1, 9, and 21, respectively, and are patentable over Noble for the reasons stated above.

Applicant requests withdrawal of these rejections to claims 1-13 and 21-26, reconsideration and allowance of these claims.

### Second §102 Rejection of the Claims

Claims 14-20, 21, 27-30 were rejected under 35 USC § 102(e) as being anticipated by Forbes et al (6,097,065).

Applicant does not admit that Forbes et al. (hereafter Forbes) is prior art, and reserves the right to swear behind the Forbes patent at a later date. Nevertheless, Applicant respectfully submits that the claims are distinguishable over Forbes for the reasons stated below.

Claims 14 and 20 recite “forming the body region as a fully depleted structure.”

Claim 21, as amended, recites “vertically forming a body region with a fully depleted structure on the first source/drain region.” Recitation to a “fully depleted structure” finds support in the specification, for example, on page 8, lines 16-18, and in the summary, column 2, line 54 -

column 3, line 42 of US patent 6,320, 222 incorporated by reference in Applicant's specification.

Applicant can not find in Forbes a teaching or suggestion of forming a body region as a fully depleted structure, as recited in claims 14, 20, and 21. Therefore, Applicant submits that Forbes does not anticipate claim claims 14, 20, and 21.

Claims 15-19 and 27-30 are dependent on claims 14 and 21, respectively, and are patentable over Forbes for the reasons stated above.

Applicant requests withdrawal of these rejections to claims 14-20, 21, 27-30, reconsideration and allowance of these claims.

Conclusion

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney (612- 371-2157) to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

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Date 20 November 2002

By

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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Commissioner of Patents, Washington, D.C. 20231, on this 20th day of November, 2002.

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